

WGC 2120

Building Code



1.	INTRODUCTION	4
2.	NEO-GEORGIAN IN WELWYN GARDEN CITY.....	7
3.	WELWYN GARDEN CITY CA CHARACTER AREAS.....	10
4.	FACADE COMPOSITION	12
5.	EXTERNAL WALLS	20
6.	WINDOWS	34
7.	DOORS	45
8.	ROOFS	53
9.	BUILDING SERVICES	62
10.	EXTERNAL LIGHTING.....	64
11.	MATERIAL PALETTE.....	66
12.	ENCLOSURE, BOUNDARIES AND THRESHOLDS.....	70
13.	TREES AND PLANTING	78
14.	NON-RESIDENTIAL BUILDING TYPOLOGIES.....	81
	REFERENCES.....	87
	GLOSSARY.....	89
	LIST OF ILLUSTRATIONS.....	93

1. INTRODUCTION

1.1. Bridges Associates Architects LLP ('BA') have been commissioned by the Property Development department of Welwyn Hatfield Borough Council ('WHBC') to prepare Building Code (hereon 'the Code') to aid the future design process of the WGC 2120 sites:

- Campus East car park
- Campus West car park
- Hunters Bridge
- Cherry Tree car park
- Town Centre North SPD

Purpose of the Code

1.2. The purpose of the Code is a landowner-driven document to guide the development of sites to reinforce the character and vitality of WGC and add to its legacy.

1.3. The value of good design is well understood. Well-designed places add environmental, economic, social and cultural value. The Building Code has been prepared to inspire quality and provide the reader with an unmistakable understanding of the 'Garden City vernacular'.

1.4. As WGC was developed over the years, there are various distinctive differences in the style and character of parts of the town (this is illustrated in the Heritage and Townscape opportunities and Constraints report ['HTOC'], BA August 2020). Therefore, this Code aims to clearly define what these characteristics are, to ensure that future proposals on the emerging WGC 2120 sites would complement the existing characters of the area in the town centre.

1.5. It should be noted that individual development of sites should be required to demonstrate an understanding of (1) the existing context, (2) history, and (3) setting of the site as well as an understanding on how the development will impact on the Garden City design principles as established in the HTOC (August 2020). Furthermore, it is advised that this should remain a balanced approach to ensure that these requirements do not prejudice the viability and delivery of these sites.

- The Code is designed to promote a holistic approach and intended it will:
- Support more efficient and effective decision-making in the planning process;
- Provide clarity and more certainty to developers on the Council's approach to design;
- Promote good quality design and inspire high-quality development; and

- Engage residents and relevant stakeholders of WGC in the shaping of their built environment.
- 1.6. Therefore, the Code will be used throughout the early lifecycle of each project / site:
- Community Engagement (February 2020);
 - Cabinet decision (to proceed with the project - March 2020);
 - Marketing phase
- 1.7. Evaluation during the sale / procurement process;
- Land-owner authority to proceed with planning application;
 - The planning decision; and
 - Detailed design approval post-planning

Relationship to associated documents

- 1.8. The Building Code will form a standalone land-owner document but will be closely associated with:
- Heritage and Townscape Opportunities and Constraints report (BA, August 2020)
 - Draft Local Plan (WHBC 2016)
 - Conservation Area Character Appraisal (WHBC 2007)
 - WGC 2120 Strategic Framework (Allies Morrison, August 2020)
 - Town Centre Building Heights Study (April 2020)
 - Relevant SPDs (including Code to Shopfront and Advertisement Design [2011] and Streetscape Design Code [2015])
- 1.9. The weight of the document has been determined by some consultation and endorsement by the Council's decision-making governance.

Engagement with relevant stakeholders

- 1.10. The Building Code will be shared with the public, relevant stakeholders, including Historic England, the Gascoyne Cecil Estate, Place Services (heritage advisors to WHBC) and other local amenity societies.

Contents of the Building Code

- 1.11. The contents of the Code are summarised below. This includes absolute requirements and strong recommendations regarding design quality with regard to proportions, details and materials and considers how the character and composition of WGC should be articulated and reinforced through the detailed design of building elevations. The Code can be divided into the following sub-sections:
- Façade proportions and articulation of relevant building typologies (residential, retail and car parking)
 - Individual elements of buildings (including windows, dormers and rooflights, balconies, roofs, doors & porches and decoration, services)
 - Material palette of building elevations (including walling and roofing)
 - Boundary treatment and enclosure (hardstanding, hedges, fences and walls)
 - Landscaping (role, colour, texture, relevant species)
- 1.12. The Building Code identifies both ‘requirements’ and ‘recommendations’ for new developments within the historic core of WGC. It should be noted that the Building Code does not exclude the possibility of a contemporary design for new development, providing certain fundamental qualities are adhered to and not just applied to an otherwise standardised ‘house style’ or design ‘product’.
- 1.13. A **Glossary** and **List of Illustrations** used throughout the Code has been included at the end of the document.

2. NEO-GEORGIAN IN WELWYN GARDEN CITY

“Where the modernist house says ‘I am happy’, the Georgian design says ‘I am correct’.

From Things we see No. 2: Houses. London, Penguin Books (1947)

- 2.1. Architecturally, much of WGC is Neo-Georgian, a conscious decision by de Soissons to adopt the style prevalent in the surrounding historic villages and towns of Welwyn, Hatfield, St. Albans and Hertford. The plentiful supply of local red sand-faced bricks settled the main building material of WGC. De Soissons also believed that the influx of German ideas of the gothic revival in the later Victorian period had cut off the development of the Georgian style and talked often of the importance of adapting the Georgian proportions and principles to modern living requirements not only to houses and public buildings but shops and offices.
- 2.2. In his designs, de Soissons (and in association with other architects, including C.H. James and C.H. Hennell, see further in Chapter 4 of the HTOC, August 2020) was not attempting to emulate the ‘high Georgian’ of Adam, Wyatt or Chambers, but instead his approach is reminiscent of a more ‘provincial Georgian’ which achieved its effects with no more than a neat façade of local brick or stone, well-proportioned (sash) windows and well-crafted Classical doorcases. At Welwyn, this resulted in the development of two modes of design. Firstly, cottages with mixed vernacular and Georgian characteristics and secondly, polite more disciplined Neo-Georgian houses. The former was used in composing groups of housing (i.e. The Quadrangle, nos 1-12 Old Drive) while the latter was adopted for larger stand-alone houses for private clients (i.e. top end of Guessens Road). As a further reaction to Victorian terrace houses, they are predominantly individual, semi-detached or in shorter informal terraces. The overwhelming characteristic of these environments is their spaciousness and the influence of trees and hedges.
- 2.3. The architecture intentionally reflects authentic Georgian buildings in Welwyn, Old Hatfield and St Albans nearby. In the earlier houses, 1st floor mansard roofs and dormer windows in a more continental style featured strongly. Later buildings tended towards steeply pitched roofs. This domestic strand of Neo-Georgian was often mixed with Arts & Crafts forms and details (reminiscent of Letchworth’s architecture). The first houses, by Crickmer in Handside Lane, were faced in stucco, with painted timber casement windows and hipped tiled roofs. Later houses, sometimes in groups or terraces, often took gabled forms and were fitted with metal casement windows. Doors and doorcases were painted timber.

- 2.4. Aside from the domestic strand, Neo-Georgian created a new attitude toward public architecture (i.e. town hall, branch banks, libraries, post offices, shopping parades). In the early 20th century (also illustrated in the public architecture in the Town Centre of WGC) is the undecorated approach of Neo-Georgian that was seen as a progressive and against neo-vernacularism and the Gothic. Neo-Georgian remained the default style for public sector buildings until the early 1960s (Holder and McKellar 2019).

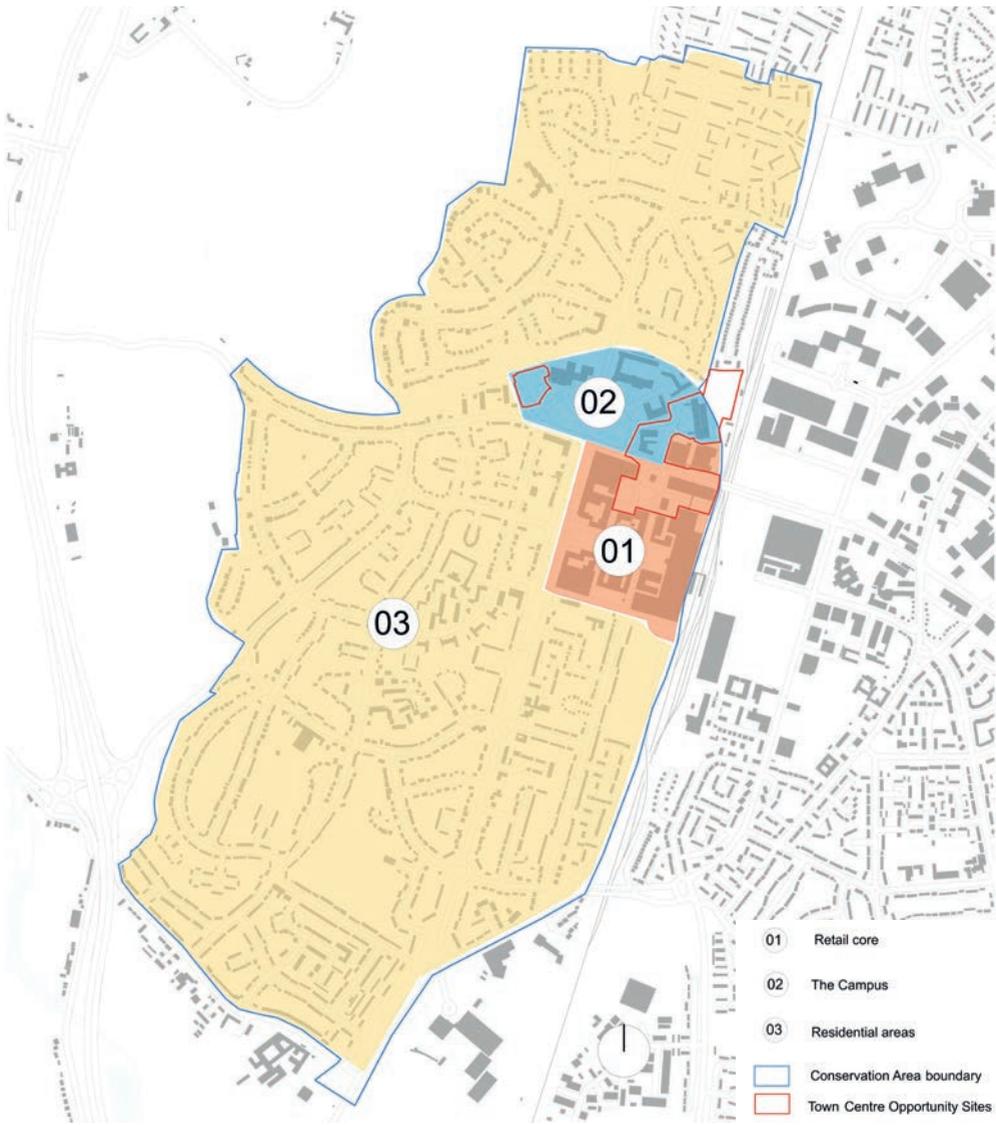
- 2.5. The public buildings in WGC adopted a very stripped back version of Neo-Georgian with distinctly limited decoration. The predominant local facing materials are red brick walling, white painted softwood sash windows set almost flush with the façade in an early 18th century detail, and red clay-tiled roofs. Doors and doorcases are painted timber. Stone dressings and details appear occasionally, particularly on public or commercial buildings. Pantiled mansards were placed at the top of commercial buildings, often too small in proportion to the façade below, and some were obviously ‘fake’ because they did not enclose any useful function. Decorative elements included pilasters and pediments to building entrances, with occasional stucco detailing.

Top left to right: Fore Street, Old Hatfield (BA 2018); 1 and 5 Holywell Hill St Albans (Geograph.co.uk); cottage in Preston (Historic England); Cecil House in Hertford (Geograph.co.uk), cottage on St Andrew Street Hertford (Geograph.co.uk); Frythe Cottages in Hitchin and High Street in Baldock (Geograph.co.uk)



3. WGC CONSERVATION AREA CHARACTER AREAS

- 3.1. As there are very few listed buildings in the town centre, it is the shared group value of buildings that is key to the character of the area and these collective townscape qualities can all too easily be eroded by poor quality design. It is the purpose of this Building Code to enable a better understanding of the key characteristics of individual building elements throughout the Town Centre CA to ensure the character and appearance of the CA will be enhanced by new emerging developments within WGC 2120.
- 3.2. The main core of WGC (signified by the Conservation Area designation) is featured formal planning on two axes – Parkway, parallel to the railway, and Howardsgate at right angles, leading to the station. A semi-circular exedra, practically tucked against the curve of the Dunstable branch line, created space for the civic centre (now known as The Campus), while an informal approach was taken to the residential neighbourhoods westward.
- 3.3. The separation of various land uses created three distinct sub-areas. These are the more formal commercial and civic areas centred around Howardsgate and The Campus, the informal residential areas to the west of Parkway and the industrial area east of the railway (and outside the CA boundary) that resulted in a designed townscape setting for which WGC is recognised.
- 3.4. The commercial and civic area is distinctly separate from the residential areas to the west and north. Firstly, this is illustrated by its physical separation by Parkway’s linear green space to the west and Bridge Road to the north but also by way of its street-block forms and their greater density of architectural character.
- 3.5. The residential areas within the CA contain a collection of streets which include cohesive groups of buildings exhibiting a distinctive garden village architectural style, set within generously landscaped plots and townscape. A significant characteristic of the urban form is the integration of aspects of the countryside into these areas.
- 3.6. It is within this context the Building Code seeks to define the ‘Garden City vernacular’. The plan opposite identifies these sub-areas within the CA.



- 01 Retail core
- 02 The Campus
- 03 Residential areas
- Conservation Area boundary
- Town Centre Opportunity Sites

4. FACADE COMPOSITION

Existing character

The arrangement of windows, doors and other elements varies from building to building, but can generally be described on a spectrum from the formal (largely within the Campus and commercial areas of WGC) and classically arranged façades, to the more informal, with a domestic character found throughout the early residential areas west of Parkway. The key aspects of buildings which relate one to another and create a cohesive streetscape and townscape are proportions, the rhythm of façade, i.e. vertical or horizontal, symmetry, the complexity of build form, i.e. dormers and roof shapes and materials. Not all of these elements have to necessarily relate, but shared features are important to create a balance between individuality and common character.

General principles of façade proportions and articulation

- The choice of whether to apply a more formal or informal façade arrangement should be a response to the proposed character of the building, the street as a whole and its relationship to the wider context (i.e. the relevant sub-areas, see map on page 13)
- Wall planes must be clearly legible and dominant in a building’s composition with ancillary building elements remaining subordinate (i.e. window and door reveals) **(1)**
- Façades throughout WGC exhibit a distinct understanding of the human scale through their articulation and modulation. The modulation of façades must respond to the plot size and not create an impression that the building is composed of apparently smaller plots **(2)**
- The arrangement of windows must consider the balance and proportion of the overall street façade. Namely, windows should generally be vertical in proportions. Horizontal strips of windows should be avoided as they are not characteristic to the Neo-Georgian idiom prevalent throughout the core of WGC **(3)**
- Building elements should be carefully composed and proportioned within the defined envelope of the building (i.e. balconies, canopies, screens, solar panels, servicing and drainage features should be integrated into the overall building composition) **(4)**
- A variety of Juliet and projecting balcony types should be used to help mark the elevation bays and emphasise the vertical bay divisions rather than horizontality of frontages **(5)**
- Jettied floors are uncommon in WGC and should not be used



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Formal / classical façade proportions and articulation (strong recommendation)

- Generally appropriate for non-residential and large-scale residential uses
- Formal façades arrangements should have a base, a middle and a top with the middle band potentially emphasising windows on the first and second-floors **(1)**
- The top of the elevation should be articulated in a distinct manner, for example through smaller windows to topmost floor, open parapets, modelled parapets and/or a projecting cornice **(2)**
- Window openings in the wall should be regularly spaced **(3)**
- The regular rhythm of vertical bays should be expressed and/or implied through window rhythm **(4)**
- Windows typically have a strong vertical emphasis and may utilise the golden section (1: 1.618) or 1:2 width to height ratio **(5)**
- Windows generally occupy between 25-(+)35% of the elevation **(6)**
- Building façades should be straight and vertical; they should not be canted, curved or faceted, except possibly at street corners **(7)**
- Where dormers are used, they should be lined up with the windows below (see Section 6 for more detail about dormers) **(8)**
- In formal streets (i.e. the commercial core), the eaves' line and roof ridge should be consistent between neighbouring buildings. However, corners within the retail area are often marked by taller building forms **(9)**

Columns and pilasters in formal facade compositions

- Columns and pilasters in WGC are rare and only used to signify entrances of public/commercial buildings where the architectural display justified the expense of these **(10)**
- They always follow the rhythm of the solid parts of the main façade walls behind or above. This alliance unifies the special features with the more ordinary treatment of the majority of a building's façade and helps to emphasise the vertical proportions and modulation of façades **(10)**
- As with all Classical architecture, the proportions and figurative detailing of the individual elements of

columns/pilasters should always be considered as part of a complete classical entablature, whether expressed in canonic detail or implied by simplified motifs. De Soissons's Neo-Georgian style mostly had reductive detailing but were always well proportioned **(10)**

- i. Column/pilaster height and width
- ii. Base
- iii. Top or capital

(i) Columns

- In WGC columns are placed on the facades of buildings usually as the means to support the roof of a pediment or porch (see separate section on 'Porches and Canopies' below). They are sturdy in appearance to support the weight of traditional masonry construction above **(11)**
- A limited number of front facades have a full-height entry porch with a triangular gable above supported by columns with shallow square bases **(11)** whilst others form arches and take the form of an arcade **(12)**. The proportion of all these individual elements should be considered together
- Detailing around architectural and structural elements of columns (i.e. base and top) usually includes carved stone or masonry components **(13)**
- Column capitals in WGC are based on simple Tuscan or Doric models; Corinthian models are not used in WGC **(14)**

(ii) Pilasters

- In WGC, pilasters are largely utilised on shopfronts (see separate section on 'Shopfronts') **(15)**. Pilasters used at the upper levels of building façades often contrast with the prevailing walling material and comprise masonry elements **(16)**
- At ground floor, pilasters should follow the same rhythm and style as the floors above. This will help to keep the appearance of the building consistent from its base, up to the eaves **(17)**
- Traditionally, pilasters have a broader plinth at the base and a decorative capital to the top. The face of the pilasters in WGC is quite plain and do not generally feature ornamentation. These can be so reductive their presence can easily be overlooked **(18)**
- Pilasters should not be too wide but instead, should be in proportion with the overall width of the façade **(19)**



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1, 2, 9



2, 3, 5



2, 3, 4, 9



4, 6, 8



3,4,7,9



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4, 5



10, 11



10, 12, 14



13



10, 14



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15, 18, 19



15, 17, 19



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Informal / cottage façade proportions and articulation (recommendations)

- Generally appropriate for smaller properties with lower floor to ceiling heights **(1)**
- Less symmetrical arrangement of windows and front entrances is acceptable, with varying window to wall relationships **(2)**
- Window openings should normally diminish in height as the building rises, so ground floor windows should be taller than first or second-floor windows **(3)**
- Windows generally occupy between 15-25% of the elevation **(4)**
- Casement windows which are taller than they are wide should be divided by timber mullions to give a vertical emphasis **(5)**. Single casement windows are not appropriate.
- Upper windows are often positioned very close to the eaves **(6)**
- The use of dormers should be occasional and where used should be small scale so as not to dominate the overall appearance of the elevation (see Section 5 for further detail on dormers) **(7)**
- For informal areas (i.e. residential) the eaves and ridge height can vary from building to building to create a varied roofscape **(8)**

The table below is a recommended approach toward determining which typology of façade composition and articulation is best suited for specific building types. This should be seen as guidance only and all new development **must** justify the approach toward proposed façade proportions and articulation.

Building typology	Façade composition	
	Formal	Informal
Detached residential	●	●
Semi-detached residential	●	●
Apartment buildings	●	
Multi-storey commercial	●	
Community facilities	●	●
Multi-storey car parks	●	



1, 2, 5, 8



1, 5



4, 6, 7



3, 4



3,4,7



1-3



1,4, 5



5,6

5. EXTERNAL WALLS

Existing character

Both the residential and non-residential buildings in WGC are characterised by their pure geometry and lack of ornament. Varieties of brickwork detailing add visual richness to the elevations of both residential and non-residential properties. Articulation and interest to external walls is also given through modestly decorated elements including parapets, roof verges, gables, door and window surrounds (these characteristics are addressed under the relevant sections below). An overview of decorative parapets, roof verges, gables, door and window surrounds have been provided in Sections 5-7 and the points below only addresses the use of brickwork in external walls.

General principles

- Street elevations **must** have common characteristics to provide a unified street scene, and be designed to reflect the character of the street or area they front onto
- Buildings **must** have some depth on the front façade. Shallow depth can be created through the use of trim/details projecting forward from the façade. Greater depth is accomplished through the use of porches, projecting or recessed sections, bay windows, or arcades (see further detail on these individual elements in Sections 5-7 below)
- Party walls should not project through roofs
- The prevailing material in all sub-areas is the local Hertfordshire red brick. This material type should be adhered to (see section on 'Brickwork' below) **(1)**
- Buildings should be constructed in one walling material and a mix of materials is not acceptable. For example, ground floor brick and upper floor render as this is not characteristic of WGC (albeit there are a few limited examples of this in WGC) **(2)**
- Shingles **(3)**, tile hanging **(4)**, lime rendering **(5)**, roughcast **(6)** and timber weather-boarding **(7)** are occasionally found in the residential areas west of Parkway, but are generally not widely used
- Weather-boarding was more commonly used for outbuildings and may be a useful design detail for garages. Traditionally, the sawn planks used for weather-boarding were wider than the narrow boards sometimes used today **(8)**



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8

Ornamentation and decoration

In WGC, parts of a façade that may be decorated / articulated include the following (note: these will be addressed in detail under relevant sections below):

- i. The horizontal base where the building meets the ground (e.g. special treatment for the foundation) **(1)**
 - ii. A horizontal section in between storeys (e.g. stone string between storeys) **(2)**
 - iii. Vertical corners (e.g. stone or brick quoins) **(3)**
 - iv. The area around the door/entry (e.g. portico) **(4)**
 - v. The areas around the windows (e.g. window surrounds) **(5)**
 - vi. Embellishment of the walls (e.g. decorative brickwork and inset tiles) **(6)**
 - vii. The horizontal top part of the wall and parapet and junction with the roof (e.g. projecting cornice, blocking course, cornice and treatment of eaves) **(7)**
- Where decoration is used it **must** be traditionally detailed, functional and have a clear purpose
 - Ornament **must** be integral to design of secondary elements and integrated into building design as opposed to being 'bolt-ons'
 - Crude or simplistic use of motif and pattern **must** be avoided
 - Where decorative features are used on key buildings to emphasise their importance, these should take their design cues from the surrounding area



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1, 4



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5, 7



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2-7



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1, 3, 5



3,5



2,3,4



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2,5



2,4,5,6



2,6

Brickwork characteristics

Types of brick

- Hertfordshire red bricks are the predominant building material in WGC. These were nearly all red, ranging from those with orange tinges to nearly purple. Generally, they were handmade and a mellow red, with rounded edges, rather than the sharp and hard edge of modern machine-made bricks. Bricks of similar size, colour and texture should be used **(1)**
- A limited range of brick colours gives the defining colour and material palette for the area. Red brickwork is the predominant theme, offset by the use of dark grey and black flared and partially vitrified headers to define edges and details (e.g. window surrounds) and add depth and visual interest to elevations. This should generally be adhered to **(2)**
- Yellow and/or beige bricks are uncommon to the historic areas of WGC and generally should not be used in the CA

Bonding

- Red facing brick was laid in predominantly in Flemish and less so in English bond. These bonds should be used for new developments as well **(3)**
- The majority of houses in WGC are built in facing brick. Even rendered houses often have facing brick plinths or chimney stacks **(4)**

Mortar, pointing and joints

- Most of the brickwork was originally laid in a lime or lime/cement mortar with a well-graded coarse sand, which was the usual technique of the time **(5)**
- Modern cement is very strong and is not suitable for the soft Hertfordshire brick. There are many examples of cement jointing and pointing that has been detrimental to brickwork **(6)**
- Historically, a flush joint was cut off as work proceeded, leaving a rough texture which has since weathered back. Modern bricklaying often involves pointing up afterwards and smoothing the mortar with a steel trowel. This produces a markedly different appearance and is generally not acceptable. A soft brushed joint is preferable in new work **(7)**

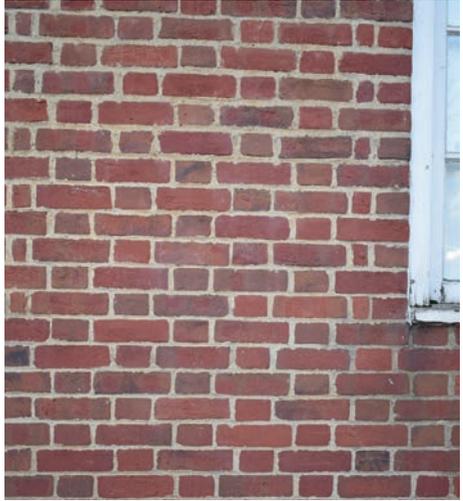
- Two main types of pointing which are not common in WGC and should not be used are:
 - iv. **Bucket-handle joint:** the action of tooling the joint produces a smooth dense surface which does not weather gracefully, but remains harsh and unchanging. The action also spreads the mortar over the edges of the bricks, giving a wider appearance which contrasts with the usual rather narrow joints of traditional **(8)**
 - v. **Weather-struck joint:** the lower edge of the bed joint projects in front of the brick face. This lower edge is then cut to a sharp-angled or straight edge. These joints have to be made in a dense smooth strong cement mortar, which is not a traditional material or profile used in WGC and is also detrimental to brickwork itself **(9)**
- Colour should only be achieved by the selection of sands and not by using artificial synthetic colouring agents. Sometimes natural earth pigments can be added but these may not be permanent
- The aesthetic integration of movement joints in brickwork **must** be considered as part of the façade design.

Detailing

- A range of brickwork detailing should be used to provide visual interest and add richness to the elevations. These could potentially include features such as brick segmental or flat arches, string courses, decorative bands, contrasting patterns and textures, corbels, dentils, moulded bricks, pilasters and recessed panels (see section on '**Ornamentation and Decoration**' above)



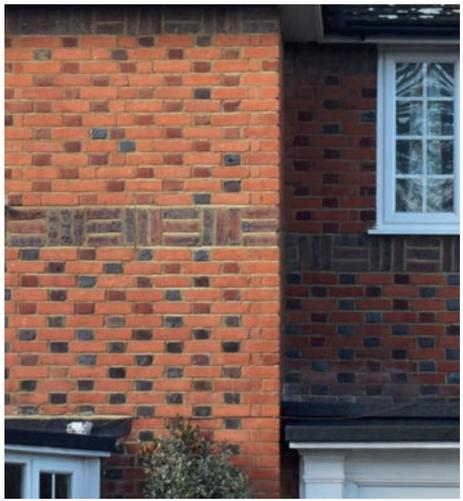
1-5, 7



1-5, 7



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6, 8



6, 9

Stonework

Use and types of stone

- Stone is used sparingly in WGC and only on the highest status and quality buildings and remains as a secondary and complimentary material to the 'Hertfordshire' red brick. This balance and hierarchy between these two materials **must** be respected
- Portland stone (a near-white / very pale coloured limestone that is typically a fine- and even-grained freestone) is used throughout the retail core and on some of The Campus buildings adding visual interest and character to important civic and commercial buildings. Its use is limited to window and door surrounds, cills, copings, stone strings, cornices and thresholds. Its use in residential areas is virtually non-existent **(1)**
- Cast (artificial) stone has also been used within the two sub-areas albeit its use is more limited compared to Portland stone. Precast features in WGC Town Centre include door and window surrounds, cills, copings and thresholds. Its use in residential areas west of Parkway is virtually non-existent (except Peel Court, College Way) **(2)**

Mortar, jointing and coursing

- Dense, cement-rich mortars are not appropriate for limestone, as they do not allow the free passage of moisture through the wall. For cast artificial stone, the mortar is usually a composite mix incorporating Portland cement and selected aggregates
- The colour and texture of the mortar **must** relate to the chosen stone
- In mortared walls, the horizontal mortar between the courses (the 'bed') and the vertical seam between stones in the same course should be as thin as possible
- Dressed stones used for window and door surrounds and other ornamentation (see section above) **must** be laid near-flush with one another, with narrow, inconspicuous joints, to give the impression of stonework being a single piece
- The joint should be given a flush surface. Projecting (ribbon) pointing, which traps moisture in the wall should be avoided
- Expansion joints (where necessary) should be out of sight e.g. located behind rainwater goods

Detailing and profiles

- A range of stonework detailing and profiles could be used to add visual interest and richness to the elevations (e.g. banded ashlar with recessed horizontal joints or vermiculated ashlar). These could include various ways of tooling stone surfaces



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Contemporary examples of brick detailing, including relief patterns to add interest to façades (1), cill and head detailing (2), string courses (3), contrasting masonry (4) and articulated brickwork (5).

6. WINDOWS

Existing character

Windows make a fundamental contribution to the character and appearance of buildings in WGC. Guidance on their general arrangement and proportions within the elevations has been included in Section 4 above. The overriding window typology in WGC is one of timber window designs made up of multiples of a basic overall size of sliding sash or casement unit, usually equal sized windowpanes, and subdivided by mullions. Bay windows are a characteristic element in the residential areas that contribute toward the articulation of street frontages (especially within the earlier residential areas of WGC, e.g. Parkway).

Overarching principles

- Window details **must** be consistent on all elevations
- A wide range of window types within one property is not characteristic to WGC and should be avoided
- Traditional window designs are fundamental to the character of WGC and these should be adhered to (see sections below on sash and casement windows)
- Window framing should generally emphasise the vertical proportion of the elevation (either through the form of the opening or the fenestration pattern) **(1)**
- Window frames should be timber but other materials might be appropriate as well subject to their detailing and overall composition in the elevation (e.g. powder-coated aluminium or composite timber and aluminium) **(2)**
- Window reveals should be a variety of depths to add articulation to elevations (see images on page 35). Generally, Neo-Georgian sash windows do not have deep reveals with the sash box set almost flush with the face of the external brickwork **(3)**
- Glazing bars should be structural; ornamental plastic strips / stuck on glazing bars are not acceptable. The dimensions of glazing bars are directly related to the proportions and sizes of the panes and the overall opening. This principle should be adhered to **(4)**
- There should be no frosted glass on any principal elevation as this is uncharacteristic to WGC
- PVC windows should not be used



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A significant number of windows within the residential areas of the CA have been replaced predominantly in PVC. However, none accurately replicate the design of the older windows. The obvious differences in the case of replacement side hung casement windows include. These poor modern window designs **must** be avoided:

- Casements not being balanced and or the inclusion of opening top fanlights, so the glazing of the opening parts of the window are different in size to the glazing of the fixed parts **(1)**
- ‘Vertical sliding sashes’ which are not sliding sashes but tilt and turn to the top part, with a very thick horizontal centre meeting rail **(2)**
- In double glazed windows glazing bars sandwiched between the two panes of glass or added as flat stick-on strips **(3)**



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1-3



1,3

Window type: Sashes

- Sash windows should be vertical sliding with the upper and lower sash generally equal (albeit there are exceptions), and together filling the whole opening height **(1)**
- Windows heights should be greater than their widths, with proportions in line with the 'Golden Section' (i.e. ratio of approximately 1:1.618) **(2)**
- Sash windows in WGC have an early Georgian character with the sash box visible and not recessed behind the outer skin. Architraves are therefore often placed to the face of the box as decoration **(3)**
- Some sash windows in WGC have horns **(4)**



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Window type: Casements

- Casement windows should be side-hung, generally flush fitting with the window frames and should be balanced and symmetrical with the panes of glass of uniform size and proportion within a given window **(1)**
- The height of individual windows should always be the same or greater than their width **(2)**
- Judgments about the glazing bar pattern should be made on a window-by-window basis **(3)**
- Single casement windows should not be used as they are uncharacteristic to WGC



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Recesses, cills, lintels and arches

- The appearance of windows, including their detailing, **must** keep to the overall “stripped back” Neo-Georgian character **(1)**
- Brick-faced or stone lintels are preferred; occasionally creasing tiles are also used. Concrete lintels should be avoided **(2)**
- Brick gauged flat arches or semi-circular arches are largely limited to more formal buildings within the retail core and are not generally present within the residential areas **(3)**
- Brick on edge lintels and arched headers are not acceptable unless part of a larger design **(4)**
- Stone drip moulding may be used on stone lintels, where traditionally detailed **(5)**
- The detailing of windows **must** be practicable and prevent water from entering crucial joints, such as in the lower parts of cills or jambs, where deterioration most often occurs. Joints should be kept tightly closed **(6)**
- Double cills are not characteristic to WGC and should be avoided



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Bay windows

- Bay windows are largely limited to the ground floor, though there are some examples of using these at first-floor level as well **(1)**
- Bay windows should comprise delicate canted bay and/or shallow curved bay (albeit less common) **(2)**
- Bay windows in WGC have generally flat roofs. Pitched and gabled roofs are uncommon **(3)**



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Dormer windows

- Dormers are common throughout all three sub-areas of WGC CA and their use is encouraged
- Dormer windows **must** be well-proportioned, have a slim profile around the window and should be of a smaller scale than the windows lower down the elevations **(1)**
- The construction of dormers **must** be integral to the main roofs of the building **(2)**
- There are 3 prevailing types of positioning dormers that are prevalent in WGC:
 - i. At or below half-way up the roof slope (packed off one of the purlins), with the ridge of the dormer well below the main ridge of the house **(3)**
 - ii. At the eaves, aligned to the internal wall **(4)**
 - iii. At the eaves, aligned to the external wall face **(5)**
- Dormer roofs should be generally flat; pitched or gabled dormer roofs are less common **(6)**
- Dormer cheeks should be slim and solid or glazed **(7)**
- Dormer windows should be flush fitting sashes or casements **(8)**
- Flashing should be well-detailed **(9)**

Rooflights

- Rooflights are not part of the historic character of WGC but when detailed well may be acceptable
- Rooflights should be flush between rafters, parallel to the roof surface and subsidiary in size
- Rooflights should be fully surrounded by roof tiles or slates



1,2,4,6-8



1,2,4,6-8



1, 3, 6-9



1-3, 6-8



1,2,5-8



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1-3, 6-9



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Contemporary examples of window detailing including dormers (1), bay windows (2) and various detailing (3)

7. DOORS

Existing character

There is a wide range of doors within the existing town centre and surrounding residential areas. Front doors are generally positioned centrally on axis or in prominent locations, with a clear relationship to public streets and spaces, and often the focus of more elaborate detailing compared to the relatively 'stripped back' elevations. Therefore, the design and detailing of doors on the street frontage is of particular importance both functionally and architecturally.

General principles

- The detailed design of the door, its frame and ironmongery, **must** reflect the overall character of the building **(1)**. The function, importance and use of the building **must** be reflected in the door's appearance (i.e. the formal or informal character of the building) **(2)**

Form, material and proportions

- For most buildings in WGC (whether residential or non-residential), panelled door-design is most prevalent. Often, the top elements of the door are glazed. Public buildings often have more intricate doors **(3)**
- Timber ledge, braced or boarded designs are less characteristic though there are some examples of these where they have been used as access to back gardens and /or ancillary structures (e.g. garages) **(4)**
- Doors should be set back from the external façade. This introduces some depth and modelling to the façade **(5)**
- In smaller (residential) houses, the doors are just simple openings in the brickwork, sometimes with an arched top **(6)**. Elsewhere in the CA, grander and more interesting doorcases and surrounds can be seen. These include timber or stone pedimented doorcases with decorative brackets and panelled surround or stone quoins with a Coade stone keystone **(7)**
- Front doors should be hardwood or other fine-grained timber in a range of coordinated colours and natural finishes **(8)**
- Fanlights occur in the higher quality buildings but are generally uncommon in residential buildings **(9)**

- Sidelights, stained or coloured glass to doors are not characteristic to WGC
- Alternative materials may be appropriate for different types of buildings (e.g. standardised PPC steel and glass assemblies or similar alternatives) and **must** be justified in terms of design and durability
- PVC doors should not be used. The use of metal needs careful justification
- The detailing of doors **must** be practicable and prevent water from entering crucial joints
- Traditionally all buildings had steps up and they were part of the integral design of the entrance) see separate Section on 'Thresholds'



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1-3, 5, 7



1-3, 5, 7, 9



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1-3, 5, 7



1-3, 5, 7



1-3, 5, 7



1-3,5,6,8, 9



1-3,5,8, 9



1-3,5,8



1-3,5,8



1-3,5,6,8



1-3,6,8



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PORCHES AND CANOPIES

Porches are not widely used throughout WGC as they were seen to detract from the simplicity of the architectural composition of the Neo-Georgian idiom. However, there are some limited examples of these within the early residential areas west of Parkway. More typical to the residential areas are flat-roofed door canopies to offer shelter to a front door. These canopies are often an important feature of an elevation to which their detailing adds visual interest.

General principles

- Door canopies and porches **must** be suitably scaled and sympathetically styled and **must** not overly obscure the elevation (1)
- Wide porches which cover an area larger than the front door itself are uncommon (2)
- The use of recessed 'loggia' type porches is uncommon throughout WGC though there are some limited examples (3)
- Side porches and canopies are uncommon (4)
- The height of the porch roof eaves should line up with the top of the relevant door frame (5)
- Fibreglass, plastic or glass-reinforced plastic **must** not to be used



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BALCONIES AND BALUSTRADES

Existing character

There are very few examples of balconies within WGC's commercial town centre or surrounding residential neighbourhoods. Largely, these are limited to Juliet balconies on commercial buildings where a modest dark-coated metal balustrade contrasts with the red brickwork. These form a secondary element of the expression of Neo-Georgian elevations.

General principles

- Balconies, balustrades and railings **must** be an integral part of the façade design **(1)**
- Balconies should not obscure the building line created by the predominant face of the building **(2)**
- Modest Juliet balconies or well-proportioned projecting balconies are appropriate **(3)**
- Glass balustrades should be avoided **(4)**
- Balcony and railing fixings **must** be discreet and hidden wherever possible to avoid clutter in the elevation design **(5)**
- Large projecting balconies, recessed balconies and balconies above bay windows are uncommon in WGC and should be avoided



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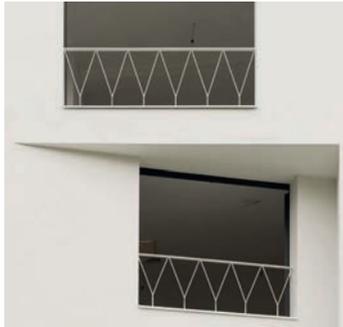
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Contemporary examples of balcony and main entrances including Juliet balconies (1), set back doorways (2) and canopies (3)

8. ROOFS

Existing character

The variety of roof shapes reflects the richness of Neo-Georgian in WGC. In the earlier residential houses, mansard roofs (Guessens Road) and dormer windows featured strongly. Later residential buildings tended towards steeply pitched roofs (Parkway Close). The original commercial (Welwyn Department Store, now John Lewis) buildings within the retail core often have the mansards half-hidden by a parapet wall with a cornice of brick or stone. These are either pitched at right angles to the front with a central valley or aligned to the ridge and tall. Some are tall enough to contain attic rooms with dormer windows looking out over the parapet.

Roof types, pitch angles and arrangement

- WGC residential buildings are characterised by a variety of roof typologies including projecting front gables (1), hipped roofs (2), pitched roofs (3), gambrel roofs (4) are also used throughout the earlier residential areas west of Parkway. These roof types should be adhered to
- Many residential buildings have steeply pitched plain tile roofs, typically 45-55 degrees although shallower pitches (down to about 40 degrees) also exist (5)
- Roofs in residential areas should be a simple pitch with ridgelines generally aligned parallel to the street. Returns are often hipped (6)
- In the case of very deep buildings where there is substantial usable accommodation within the roof space, the central part of the roof (at least 4.5m back from the gutters) may be virtually flat. This is a characteristic of the larger commercial buildings within the retail core of WGC (see further details under the 'Mansard roofs' section below)
- Gables should have narrow proportions where visible from the public realm (7)
- No rooftop plant **must** not be visible from low or high-level views



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Mansard roofs

- There are two types of mansard roof present in WGC: double-pitched mansard (1) and flat-topped mansard (2). The prevailing mansard type in WGC is the flat-topped mansard though there are also a few examples of the double pitch mansard
- Mansards are generally set slightly back and behind a parapet on the street side (albeit there are limited extensions, such as the Council Offices where the mansard lines up with the wall plane below). This characteristic should be adhered to and the mansards should not project forward (3)
- The lower, steep, pitch of the mansard is 70 degrees and the upper pitch varies from 30 to 36 degrees. This characteristic should be adhered to (4)
- Roofs should generally be in tile with a lead flashing at the junction of the two slopes and lead on the dormer cheeks. This characteristic should be adhered to (5)
- Adequate space **must** be provided behind the parapets for parapet gutters and access for cleaning (6)



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Roof verge and eaves treatment

- Buildings should generally have parapets or eaves with a modelled profile which forms a positive cornice line seen from the street (1)
- The use of bonnets and half-round ridges in scale with the roof is a characteristic feature within the residential neighbourhoods of WGC (2)
- In some residential properties, eaves are sprocketed (3)
- Thick box eaves or verges should be avoided
- A range of masonry/brick parapet details are encouraged as they enrich the roofline (e.g. creasing tiles at the verge of a gable) (4)
- Gutters and downpipes should be in painted metal (usually black) and should be positioned as tight as possible to the wall face (5)
- Roof structures that are not an integral part of the building such as plant or railings **must** not visually dominate the roofscape

Roof materials

- Roof materials **must** weather well, so their ageing process contributes positively to the character of the building, and the site's wider context
- Virtually all buildings carry local plain red clay tiles (6) or clay pantiles (7). This characteristic should be adhered to
- The original plain clay tiles or pantiles should be replicated in terms of colour, size and detailing
- Metal clad pitched roofs are uncommon and should not be used
- Concrete or profiled imitation tiles are not appropriate and should not be used
- Flat roofs are not common in WGC but where they form part of a flat-topped mansard should be planted – either with 'green' or 'brown' roofs and should always have parapets (see section on 'Mansard roofs' above)



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Chimneys

- Chimneys are an important feature because they punctuate the skyline, articulate the roofline and therefore form an important component in the character of streets **(1)** Traditional chimneys tend to be located either on the ridge **(2)** or occupy a position further down a roof slope **(3)** and usually reflect the location of the fireplace on plan
- Where chimneys are incorporated into the new development, they should be high-quality, contemporary in detail, and generally of brick to match the façade walling



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Contemporary examples of roof detailing including mansards (1), red and grey tiles (2) and chimney forms (3)

9. BUILDING SERVICES

- The visual impact of boxes, vents and flues **must** be considered at a layout stage to ensure these features do not negatively impact on the overall appearance of the building
- Building ventilation, air extract grilles **must** be well considered, detailed and integrated into the architecture of the building and treated as part of the overall façade composition **(1)**
- Services and drainage such as pipes, meter boxes, satellite dishes, cables, wires **must** not be visible on primary street elevations (except rainwater pipes) **(2)**. On other elevations, they should be fully integrated with the architecture of the building and treated as part of the overall façade composition
- When not in operation, building maintenance units **must** be hidden from street view
- Utility and services buildings (e.g. electricity sub-stations, foul water pumping stations and gas governors) **must** be designed to integrate with the surrounding development in terms of materials, scale and architecture
- Waste and recycling storage and collection **must** be carefully considered to be both functional and appropriately integrated into the design of all buildings
- Service risers **must** be designed with sufficient space to cater conveniently for any future changes



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10. EXTERNAL LIGHTING

- Lighting **must** complement the buildings and/or public realm, utilising a consistent palette of fittings that minimise clutter and provide appropriate lighting levels to ensure safety **(1)**
- Lighting units in WGC are usually column-mounted at heights no greater than 8m and/or fixed on buildings in some areas of the Town Centre (i.e. retail and commercial core). This approach should be adhered to **(2)**
- New developments should avoid standardised lighting and choose the design and light source most appropriate for the area
- Security lights and CCTV cameras **must** be appropriately integrated into the overall elevation
- External lighting **must** be energy efficient and the environmental impact of light spillage is kept to a minimum so as not to create problems for residents, or have a harmful effect on the rural character or ecology of the area



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11. MATERIAL PALETTE

Existing character

Throughout Hertfordshire, the basic walling material is brick. The predominant brick colour is a darker red. In WGC, the plentiful supply of local red sand-faced bricks settled the main building material of the town. De Soissons specified the Hertfordshire Georgian red-brick (i.e. as found in Welwyn, Hatfield, St Albans and Hertford) as the inspiration for the main architectural style in WGC.

General principles

- **Scale:** Materiality **must** firstly be considered at the scale of the street, block, and user. Maintaining a legible, simple and coherent strategy at each scale will help define successful material choices (see **Section 4** on façade proportions above).
- **Context and homogeneity:** Materiality **must** refer specifically to successful elements of WGC and choose whether to directly utilise these materials and features or to complement them with alternative materials. Red brick should remain a predominant material to define buildings from a distance. Other materials used in conjunction should be of a similar tonal palette.
- **Simplicity:** The Neo-Georgian material palette in WGC is limited to 2-3 key components (i.e. red brick, contrasting stone and red or grey tiles). Selection of materials **must** follow this simple palette. This is particularly important at a street level, as a confusing or messy palette will limit the integration of the building(s) into the existing context.
- **Visual interest:** At the building and user scale, complementary materials should be used to enhance and articulate elevations. In WGC, this is illustrated in subtle differences in brickwork detailing, texture and colour of the individual building elements in relation to the overall façade.
- **Homogeneity:** As there are no listed buildings in the town centre it is the shared group value of buildings that is key to the character of the area and these collective townscape qualities can all too easily be eroded by poor quality design. The overall homogeneity of the material palette across the CA retains high importance.
- **Individual elements:** It is recommended the material palette is used appropriately for different parts of the elevation. This will ensure the key façade composition principles are followed.
- **Robustness:** Materials be practical, durable, affordable and attractive. Maintenance is a key issue, particularly on larger developments where the ongoing maintenance strategy may not be defined at the design stage.

Overview of key materials found throughout the WGC Conservation Area.

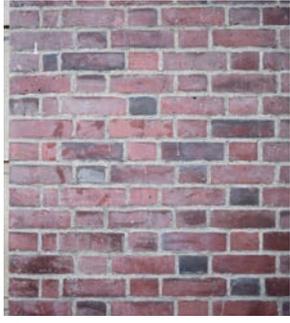
Building element	Materials	Character areas within WGC CA		
		Residential areas	Retail core	The Campus
Walls	'Hertfordshire' red brick (1)	●	●	●
	Painted brick (2)	●		
	White render (3)	●		●
	Timber boarding (4)	●		
	Roughcast (5)	●		
	Shingles (6)	●		
Windows and door frames	Oak / other fine-grained timber (7)	●	●	●
	Crittall steel (8)		●	
Roofs	Plain red/grey clay tiles (9)	●	●	●
	Clay pantiles (10)	●	●	●
	Creasing tiles (11)	●		
Façade detailing	Portland stone (12)		●	
	Painted timber (13)	●	●	●
	Cast stone (14)		●	●
	Metal (15)		●	



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12. ENCLOSURE, BOUNDARIES AND THRESHOLDS

Existing character

The pronounced natural green and leafy assets of WGC comprise mature street trees, green verges and gardens. Within the residential areas, apart from courts and closes, all houses front directly onto the streets. Hedges are used at the boundary to enclose a small front garden between the houses and the footway.

Hedge-lined roads help to soften the roadsides and create a countryside character. The main gardens are usually located behind the houses. All these elements contribute toward the rural character of the residential areas west of Parkway and north of The Campus.

Within the commercial area of the town centre, plot boundaries for urban blocks are often defined directly by building frontages with only limited greenery within the public realm (aside from the central linear green spaces at Howardsgate and Parkway).

General principles

- Boundary treatments **must** provide a clear distinction between the public and private realm and **must** be carefully controlled to avoid a disjointed approach to streets and buildings. Crossing this boundary **must** form part of the design

Boundary treatment: hedges, walls, fences

- Housing plots and blocks should be of sufficient depth to accommodate gardens to the front and rear of homes as front gardens make a particularly important contribution to the residential and green street scene in WGC (1)
- In residential areas, hedges contribute to the rural character of WGC. Hedge styles can have a significant impact on the character of an area and new hedges should be of a similar species to the existing ones. Originally, hedge species were chosen to give each road a particular character (these included briar rose, beech, plum, holly, privet, yew) (2).
- Hedges should be varied in height and texture, so as to be complementary or supplementary to the trees (2)
- Houses are commonly well screened by a hedge that often spans the width of the plot (with a break to accommodate a carriage driveway) and of sufficient density to screen the view of a fully paved hardstanding (2)

- Hedges in WGC are usually closely clipped. They should not be various heights or shapes and should maintain a uniform appearance (2)
- The original leases for Suburb properties generally recommend that front hedges be kept at a maximum of 3ft 6in and rear hedges 6ft. Heights and types of frontage hedges should reflect those in the immediate vicinity (2)
- Removal boundary hedges erodes the strong distinction between the public and private realms
- Hedges should be preferred to fences or walls.
- Hedges should be cut back to the boundary to allow easy access for pedestrians (2)
- Timber gates are important features and **must** be well-detailed (3). Elaborate iron gates and railings are not generally a feature of WGC houses and should be avoided
- Elaborate metal railings are uncharacterised to WGC (either on top of a low wall or as a stand-alone feature) and should be avoided. Modest guard rails and timber posts are characteristic within the commercial sub-area and along Parkway (4)
- Brick walls and boarded or solid panelled fences are not characteristic to WGC and should be avoided



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Hardstanding, paving, decking and thresholds

- In residential areas, grassed and planted front gardens are a key characteristic of WGC (1)
- Driveways should preferably be surfaced with gravel, York stone and brick or porous paving (2). Large areas of tarmac or paving should be avoided. Mass concrete and brightly coloured paviors are not acceptable. Patterns, motifs or symbols should not normally be incorporated
- The creation of extensive paved forecourts and carriage drives that reduce garden areas, landscaped forecourts and the line of hedging should be avoided as they are alien to the original appearance residential areas of WGC
- Timber decking is not a traditional material and its use is uncharacteristic in WGC
- Historically, most buildings had a step up into the building. Level thresholds are uncommon (3)



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Surface parking and motorhouses

Note: this section does not include multi-storey parking structures, see **Section 15** below.

- The impact of cars on townscape quality has been significant and harmful and **must** be minimised by keeping communal parking areas small, attractively detailed and efficiently laid out
- Parking areas **must** be designed as an integral part of the overall design so that areas of car parking do not visually dominate
- In larger developments (i.e. blocks of flats), a dominance of car parking **must** be avoided by providing parking in small groups, integrating a variety of parking solutions and planting sufficient vegetation to break up the visual appearance
- Car parking spaces **must** be designed to look good with and without cars and contribute positively to the design of the whole development and not adversely affect the amenities of existing or new residents
- Placing parking in the front curtilage of properties should be avoided
- Car parking and access roads should be designed to minimise water runoff and where possible will provide surface water recycling through the use of suitable porous surface treatment and SUDs
- Motorhouses sometimes formed part of the original designs of houses in residential areas. These were usually quite low scale. There are few motorhouses that retain the original scale, massing and doors **(1)**. Most retain original massing but the doors have been changed **(2)** Where the original structures have been extended **(3)** they detract from the street frontage and large areas of paving and hardstanding has further eroded the green character of the residential streets.



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13. TREES AND PLANTING

Existing character

Integrating the landscaping into the design of the town formed a significant part of de Soissons' designs. All trees already established were wherever possible left in the plan, all the roads were planted with trees and many more were planted at the back of building plots. At focal points, large trees were planted in groups to make features in the roads and cul de sacs.

The Parkway limes were bought from a bankrupt Surrey nursery. Hazels, various thorns, almonds and acacias were planted in groups and rows to give a variety of habit of growth, foliage, shape and colour and flowering at different times of the year. Intermediate sized trees such as limes, mountain ash or rowan also appeared in the early landscapes.

General principles

- Planting **must** be based on the overall character of the area. There are distinct differences between the Town Centre landscaping (formal avenues of planting, limited variety of species) **(1)** and the residential areas (less ordered, various groups of trees and shrubs) **(2)**. This **must** be adhered to
- Planting **must** be based on a palette of robust plant species, including native species that are already present in WGC (e.g. locally characteristic mixture of oak and hornbeam as found in Sherrardspark Wood) **(3)**
- Planting strategies **must** use existing landscape features such as tree groupings (including historic field trees) and hedges or the planting of street trees, tree belts, shrubs and grassland **(4)**
- Streets **must** be of sufficient width to accommodate landscape design elements including street trees, grass verges and central medians characteristic to WGC **(5)**
- Planting **must** be designed for biodiversity and wildlife value and deliver visual and seasonal interest **(6)**. This should include a consideration of flowering times, scent, autumn colour, winter bark, fruit and berries as well as wildflower habitat and food sources
- Planting zones and underground servicing **must** form part of an integrated design approach from the beginning



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14. NON-RESIDENTIAL BUILDING TYPOLOGIES

SHOPFRONTS

Existing character

Shopfronts are generally located within the Neo-Georgian town centre, creating some general themes to the shopfront designs. The character of existing shopfronts has been summarised in the *Guide to Shopfront and Advertisement Design (2011)* and will not be repeated here. However, the guidance below will outline the key general principles relating to façade articulation and proportions.

General principles

- Shopfronts **must** continue the scale, quality and variety within their façades. There is opportunity to reinterpret these in a contemporary manner. Namely, a traditional shop front in WGC is composed of a number of distinctive, well-established elements – most notably a stallriser (base), a fascia (top) and sometimes pilasters (to either side) – which together provide the basic frame for the shop front. This hierarchy of elements **must** be adhered to **(1)**
- Shopfront fascias **must** not dominate the shopfronts and remain subsidiary to the principal elevation. They **must** be designed to accommodate all signage which **must** not be fixed to the main façade **(2)**
- Retail shopfronts **must** be contained within the structural bay of buildings; they should not cover up the building piers **(3)**
- Retail windows should have stallrisers to bench height to refine the experiential quality of the public realm and add visual interest **(4)**



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MULTI-STOREY CAR PARKS

Existing character

The original design for Welwyn Garden City did not anticipate the rapid growth in the use of cars through the twentieth century and therefore it did not provide the necessary infrastructure. This was addressed through the 1960s with a series of surface and multi-storey car parks built around the northern edges of the Campus and the town centre. Some of these car parking sites now form the key development opportunities as part of the WGC 2120 proposals. This building type is not part of the historic building typology of WGC and their function and appearance are usually harmful to all aspects of townscape. The principles for their design should be guided by the recommendations of the relevant sections above. However, specific general requirements have been also outlined below.

Specific heritage, townscape and design guidance relating to WGC 2120 sites 1 and 4 has been further addressed in the **WGC 2120 Strategic Framework** (August 2020) and will not be duplicated here.

Appearance

- New parking facilities **must** be high-quality, well designed and contribute positively to the character and appearance of WGC (including positively contributing to the street scene, integrating with the existing streets, paths, landscape and surrounding development and be complementary to the majority of land uses in the area)
- The parking facilities should take an honest architectural approach to the expression of the structures but seek innovative ways to integrate these into the surrounding sensitive environment
- Externally car parking structures should utilise the same architectural components found in the town centre (materials, rhythm of bays and formality) but reconfigure them in a creative and innovative fashion
- The multi-storey car park should avoid excessive horizontal visual expression. They should alternate between the solid deck, open void and break up the massing appropriately to diminish visual bulk and utilise spacing of bays through vertical facade components (e.g. columns, piers, fins, vertical shading, cladding patterns) to further break up the façade
- The elevations should utilise careful proportions and massing, including a rhythm of ventilation

voids which avoid large blank surfaces and openings on prominent elevations which otherwise increase the scale

- Where parking within a podium or where other non-active spaces are located at ground level, street frontages should be wrapped with other uses to create activity. Blank façades should be avoided
- Extensive projecting elements (e.g. ramps, stairs, lift cores) should be avoided and placed internally and/or in less prominent locations

Materiality

- The material palette of the proposed parking facilities should be consistent in terms of colour, texture and composition to complement the existing townscape
- The cladding to the car park superstructure **must** be sympathetic to the qualities of the existing street scene and/or in the landscape setting
- The selection of cladding material should avoid making the structure look visually heavy. Materials that are found within the existing townscape, including the use of green walls is strongly encouraged
- Cladding should seek to minimise the visibility of cars and screen them from direct view and also provide adequate ventilation
- Cladding should also be designed to minimise the visibility of vehicle headlights moving within the structure at night time

Building services

- In order to break up the roofline, minimise visual bulk, reflection and glare, the visibility of the rooftop plant or other building services **must** be minimised (this includes lighting masts and solar panels/canopy)
- Lighting **must** be a key consideration and in general directional lighting fixings should be used to manage light spill. Generally, light fixtures should be downward facing and switch off lights should be used when the car park is not used late at night
- Lighting within lower floors should be designed to minimise the stark contrast of fittings against

dark backgrounds. This prominence at night time is a harmful townscape impact, increased by the large scale of car park structures

Public realm

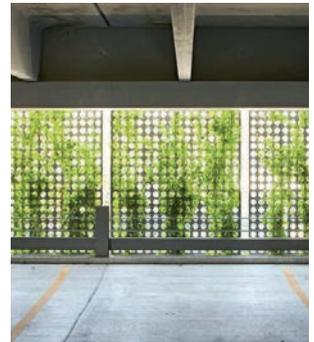
- New parking facilities should provide public realm improvements around the perimeter at ground level
- New landscaping should not negatively impact on the existing character and appearance of the area (further detail on landscaping in WGC is included in **Section 14**) and should be utilised in a way that will help to soften the impact and visibility of the car park
- Boundary treatment should be high-quality and contribute towards a sense of security around the car park



2



2



3



3 (Whitefriars shopping centre car park, Canterbury [HE])



2 (Wilkinson's car park, Blackpool [HE])

Selection of examples of multi-storey car park detailing including timber façades (1), contrasting masonry (brick and stone) and/or metalwork (2) and green wall detailing (3).



Hatfield station multi-storey car park



Avenue de Chartres multi-storey car park, Chichester (HE)



Wharf Green car park, Swindon



Multi-storey car park in Pitea, Sweden (White Arkitektör)



Bircham Park multi-storey car park (S333 Architecture)



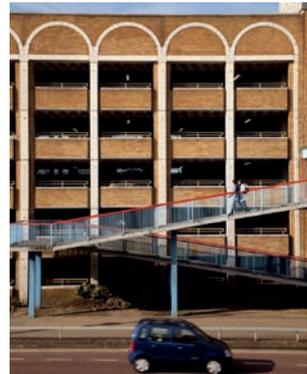
Crown Street multi-storey car park, Ipswich



Ejler Bille car park in Copenhagen



Whitefriars car park, Canterbury (HE)



Queensgate Centre, Peterborough (HE)

Examples of multi-storey car parks utilising a variety of materials and textures to break down the massing, scale and visual bulk of the structure

REFERENCES

Allies Morrison (August 2020) WGC 2120 Strategic Framework

Bridges Associates (August 2020) Heritage and Townscape Opportunities and Constraints report

Holder, J. and McKellar, E. (2019) Neo-Georgian Architecture 1880-1970: a reappraisal

WHBC (2007) Welwyn Garden City Conservation Area Character Appraisal

WHBC (2015) Code to Shopfront and Advertisement Design

WHBC (2015) Streetscape Design Code

GLOSSARY

Architrave (door/window): style of mouldings (or other elements) framing the top and/or sides of a door, window or other rectangular opening

Ashlar: type of masonry which is finely cut and/or worked, and is characterised by its smooth, even faces and square edges

Bay window: multi-panel window that projects outward beyond the external wall of a building

Blocking course: finishing course of a wall showing above a cornice usually serving as a solid parapet and forming a small architectural attic

Bonnet tiles: overlapping curved tiles that are found on the corner of a roof where two roof slopes meet.

Box-in eave: encases the roof rafters but meets the side of the building at the same angle as the roof pitch

Casement: window with a glazed 'sash' that is hinged at the sides (side hung), or at the top (top hung) or at the bottom (bottom hung)

Cill: the horizontal piece below a window unit in masonry construction or in wood framing.

Coping: consists of the capping or covering of a wall

Corbel: architectural member that projects out from a wall and acts as a type of bracket to carry weight, such as that imposed by a balcony above. Corbels are built into walls to a depth that allows the pressure on the embedded portion to counteract the load on the exposed portion. Traditionally, they are made of stone, timber or metal but can be made up with bricks or creasing tiles.

Cornice: decorated projection at the top of a wall provided to protect the wall face or to ornament and finish the eaves

Dentil: one of a number of small rectangular blocks resembling teeth, used as a decoration under the moulding of a cornice.

Dormer: a window placed on the slope of a roof, vertical to the rafters.

Dormer cheek: the vertical side of a dormer.

Dressed stone: a stone that has been worked to a desired shape; the faces to be exposed are smooth, usually ready for installation.

Drip mould: a projection from a cornice or sill designed to protect the area below from rainwater (as over a window or doorway)

Eaves: the construction at the foot of a sloping roof

English bond: an arrangement of bricks such that one course has the short sides of the bricks (headers) facing outwards, and the next course has the long sides of the bricks (stretchers) facing outwards.

Expansion joint: or movement joint is an assembly designed to hold parts together while safely absorbing temperature-induced expansion and contraction of building materials

Fanlight: opening upper casement of a window which hinges at the top or fixed glazing above a door.

Flashing: thin pieces of impervious material installed to prevent the passage of water into a structure from a joint or as part of a weather resistant barrier system. Metal flashing materials include lead, aluminium, copper,[1] stainless steel, zinc alloy, and other materials.

Flemish bond (brick): an arrangement of bricks such that each course consists of alternate bricks having their short

sides (headers) and long sides (stretchers) facing outwards, with alternate courses being offset

Gable: a triangular-shaped vertical wall of a building directly under the roof

Gambrel roof: a two-sided, symmetrical roof that has two slopes on each side. The lower slope is steeper and the upper slope is positioned at a shallow angle.

Gauged arch: a masonry arch that has bricks or stones gauged in such a manner that the joints radiate from a common centre

Glazing bar: a wood or metal bar which divides the panes of glass in a window.

Hard-standing: a paved area for parking vehicles.

Header (brickwork): a brick laid with its short side exposed

Hipped roof: a roof where all of its sides are sloping i.e. with no gable end

Jamb: vertical up-right components that form the sides or of door or window frames

Jettying: is a building technique used in medieval timber-frame buildings in which an upper floor projects beyond the dimensions of the floor below

Juliet balcony: a very shallow balcony with a safety railing on an upper storey of a building

Keystone: is the wedge-shaped stone at the apex of a masonry arch or typically round-shaped one at the apex of a vault

Ledged door: a wood door without stiles which is constructed of vertical boards held together by horizontal battens on the back-side

Lintel: the structural element supporting the masonry above a door or window opening

Mansard roof: type of roof having two slopes on every side, the lower slope is considerably steeper than the upper

Mullion: a vertical dividing member between the lights of a door or window, each of which may be further divided into panes by glazing bar

Open eaves: where the feet of the rafters are left exposed, with no fascia or soffit boards

Pantile: a roof tile shaped like an S which gives a ridged or wavy appearance to a roof

Parapet: a low protective wall along the edge of a roof, bridge, or balcony

Pediment: the triangular upper part of the front of a classical building, typically surmounting a portico

Pilaster: a rectangular column, especially one projecting from a wall

Pointing: the finish of the mortar joint in brickwork

Portico: a porch leading to the entrance of a building, or extended as a colonnade, with a roof structure over a walkway, supported by columns or enclosed by walls

Quoins: are masonry blocks at the corner of a wall

Render: external wall finish of cement/lime/ sand, sometimes textured and often painted

Ridge tile: half-round terracotta tile fitted to the apex of roof

Roof ridge: highest point on a roof, represented by a horizontal line where two roof areas intersect, running the length of the area

Roughcast: a rough-textured render, sometimes painted

Sash window: window type made of one or more movable panels, or "sashes", [A] that form a frame to hold panes of glass, which are often separated from other panes (or "lights") by glazing bars

Shingles: roof covering consisting of individual overlapping elements. These elements are typically flat, rectangular shapes laid in courses from the bottom edge of the roof up, with each successive course overlapping the joints below. Shingles are made of various materials such as wood, slate, flagstone, metal

Sprocket: a wedge-shaped piece of wood fixed to the foot of each rafter, to create a shallower pitch at the lower part of the roof

Soft landscaping: areas of planting e.g. flower beds, borders and lawns

Storm casement: an opening casement (sash) that overlaps the face of the window frame when closed

String course: a raised horizontal band or course of bricks on a building.

Transom: a frame element that divides a window horizontally, usually under a fanlight casement

Tile creasing: clay tiles bedded in mortar, used as detailing in walls.

Hanging tiles: vertically-hung tiling is a cladding for walls and other upright surfaces that comprises plain roof tiles and decorative versions of these.

Verge: the junction where the roof finish overhangs the gable wall

Vermiculated stone: the carving or finishing of building stones with irregular grooves intended to resemble worm tracks

Weather-boarding: form of external cladding. Weatherboards are made from timber or reconstituted hardwood that can be painted or stained

Window horn: originally used in timber sash windows to strengthen the window's structure. They supported the mortice and tenon joints and prevented the sashes from opening too far and becoming jammed

York stone: a variety of sandstone, specifically from quarries in Yorkshire

LIST OF ILLUSTRATIONS

Page 15 (top left to right): Nos 51-59 Howardsgate; no 49 Howardsgate; nos 58-66 Howardsgate; no 14 Howardsgate; no 12 Howardsgate; no 64 and 66 Parkway; no 26 Guessens Road, no 40 Howardsgate; no 53 Howardsgate

Page 18 (top left to right): Nos 58-66 Howardsgate; no 13 Howardsgate; John Lewis (Parkway); no 49 Howardsgate; nos 52-58 Howardsgate; 13 Howardsgate; nos 8, 10, 14 Parkway; no 14 Elmwood

Page 19 (top left to right): John Lewis (Park House), Cherry Tree (Waitrose), John Lewis, Waitrose; Waitrose; 36 Stonehills; 41 Wigmores North; 28-36 Stonehills; John Lewis

Page 21 (top left to right): No 76 Parkway; Lytton Gardens; Guessens Walk; Farm Close; no 105 Handside Lane; no 6 Valley Road; Handside Green; Old Drive

Page 23 (top left to right): No 4 Elmwood; The Quadrangle; Guessens Court; no 106 Handside Lane; Meadow Green; nos 1 and 3 Elmwood; No 14 Old Drive; Handside Green

Page 25 (top left to right): No 14 Howardsgate; no 12 Guessens Road; Guessens Court; Church of St Francis of Assisi; no 22 Parkway; no 14-15 Meadow Green

Page 26 (top left to right): No 104 Handside Lane; no 13 Howardsgate; no 14 Howardsgate; no 17 Guessens Road; no 18 Meadow Green; no 8 Longcroft Lane; The Quadrangle

Page 27 (top left to right): No 2 Guessens Road; John Lewis; no 20 Parkway; no 20 Parkway; no 24 Howardsgate; 34 Guessens Road; no 4 Elmwood

Page 30 (top left to right): No 13 Stonehills; Charter House, Parkway; Farm Close; no 34 Guessens Road

Page 31 (top left to right): United Reformed Church; John Lewis; Council Offices; no 13 Howardsgate

Page 33 (top left to right): John Lewis; 15 Howardsgate; no 44 Howardsgate; John Lewis; Charter House, Parkway; Council Offices

Page 34 (top left to right): no 14 Howardsgate; no 13 Howardsgate; no 49 Howardsgate; No 13 Stonehills; no 14 Howardsgate

Page 37 (top left to right): Charter House, Parkway; Charter House, Parkway; no 49 Howardsgate; no 13 Stonehills; no 14 Howardsgate; Council Offices; no 20 Parkway; no 159 Handside Lane.

Page 38 (top left to right): Homerfield; no 103 Handside Lane; no 18 Meadow Green; Attimore Close; 39 and 41 Handside Lane

Page 39 (top left to right): no 13 Howardsgate; no 14 Howardsgate; Vicarage of the Church of St Francis of Assisi, Parkway; no 8 Parkway; no 14-15 Meadow Green

Page 40 (top left to right): no 159 Handside Lane; no 13 Elmwood; no 16 Guessens Road; The Quadrangle; no 6 Polayn Garth

Page 42 (top left to right): No 9 Russelcroft Road; no 30 Guessens Road; Council Offices; no 8 High Grove; no 40 Howardsgate; no 49 Howardsgate; Charter House, Parkway

Page 43 (top left to right): No 14 Parkway; no 4 Russelcroft Road; 15 Meadow Green; Old Drive; High Grove; High Grove

Page 45 (top left to right): No 51 Howardsgate; Council Offices; no 12 Howardsgate; no 22 Parkway; nos 66 and 68 Parkway; Vicarage of the Church of St Francis of Assisi, Parkway; Guessens Walk; no 126 Guessens Road

Page 48 (top left to right): John Lewis; John Lewis; no 13 Howardsgate; no 31a Howardsgate; no 49 Howardsgate; no 14 Howardsgate

Page 49 (top left to right): no 2 Parkway Close; no 50 Church Road; no 104 Guessens Road; no 32 Polayn Garth; no

7 High Grove; no 16 Elmwood; no 4 High Grove; Valley Green; no 20 Parkway

Page 51 (top left to right): Little Youngs; no 24 Guessens Road; no 9 The Quadrangle; no 9 Attimore Road; no 34 Barleycroft Road; no 6 Elmwood; no 41 Attimore Road; no 6 Russelcroft Road; Farm Close

Page 53 (top left to right): John Lewis; 28-33 Stonehills; no 53 Howardsgate; The Quadrangle; no 10 Howardsgate; no 50 Howardsgate; no 28-33 Stonehills

Page 56 (top left to right): No 9 Handside Lane; Melbourne Court; no 9 Elmwood; no 7 High Grove; Old Drive; no 4 Russelcroft Road; no 26 Guessens Road; Meadow Green, Guessens Court

Page 57 (top left to right): Lytton Gardens; no 44 Longcroft Lane; Farm Close; no 68 Parkway; No 18 Russelcroft Road and no 28 Handside Lane; no 105 Handside Lane; The Quadrangle; Handside Green

Page 59 (top left to right): Council Offices; John Lewis; no 13 and 15 Howardsgate; no 52-58 Howardsgate; no 12 Howardsgate; no 30 Howardsgate

Page 61 (top left to right): Lytton Gardens; no 20 Old Drive; no 20 Guessens Road; Parkway Close; Meadow Green; no 22 Longcroft Lane; no 2 Guessens Road; no 9 Handside Lane.

Page 62 (top left to right): Guessens Road; no 16 Pentley Park; no 20 Parkway; Meadow Green; no 20 Guessens Road; Barleycroft Road

Page 65 (top left to right): No 13 Howardsgate; no 50 Howardsgate; no 22 Howardsgate; no 14 Howardsgate; Farm Close; no 50 Church Road; no 104 Handside Lane

Page 67 (top left to right): John Lewis; Old Drive; no 11 Howardsgate; Little Youngs; Little Youngs; no 8 Parkway; no 20 Longcroft Lane; no 8 Guessens Road; Parkway Close

Page 70 (top left to right): No 13 Stonehills; United Reformed Church; John Lewis; Old Drive, Old Drive, Old Drive; United Reformed Church; Homerfields; Parkway Close; no 106 Handside Lane

Page 71 (top left to right): Meadow Green; no 9 Elmwood; Lytton Gardens; no 13 Stonehills; no 11 Howardsgate; no 13 Stonehills; no 14 Howardsgate; no 50 Church Road; no 28-33 Stonehills

Page 74 (top left to right): Guessens Walk; Lytton Gardens; 22 Longcroft Lane; no 52 Howardsgate; Elmwood; no 11 Russelcroft Road; no 31 Bridge Road; Homerfields; Birdcroft Road

Page 75 (top left to right): No 1 High Grove; Guessens Walk; Barleycroft Road; no 50 Church Road; no 1 Homerfields; no 20 Old Drive; Parkway; no 29 Howardsgate

Page 76 (top left to right): Guessens Court; no 17 Russelcroft Road; no 108 Handside Lane; no 4 High Grove; Valley Road

Page 77 (top left to right): Old Drive; no 104 Handside Lane; no 34 Barleycroft Road; Parkway Close; Farm Close; no 18 Parkway; John Lewis (Bridge Road)

Page 78 (top left to right): No 5 Russelcroft Road; Guessens Walk; Elmwood; no 18 Parkway; no 7 High Grove; Handside Green; no 81 Handside Lane; no 59 Handside Lane

Page 81 (top left to right): Howardsgate (east); Stonehills (north); The Campus (north); Parkway; Parkway; White Bridge, Digswell Road; Bridge Road; The Campus

Page 82 (top left to right): Polayn Garth; The Quadrangle; no 17 Russelcroft Lane; Valley Green; no 4 Elmwood; Farm Close; Melbourne Court; Handside Green

Page 84 (top left to right): No 53 Wigmores North; no 50 Howardsgate; no 30 Howardsgate; no 50 Howardsgate; no 36 Stonehills; no 13 Howardsgate, Cherry Tree (Waitrose)

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